AMENDMENTS TO THE CLAIMS

1. (Original) A system for controlling a volume output by a set of headphones to prevent harmful sound levels from damaging a user's hearing, the system comprising:

a volume sensor/controller for determining sound levels from an audio source and comparing the predetermined sound levels to a volume threshold; and

a warning indicator for indicating that the determined sound level is outside the volume threshold.

2. (Original) A system for controlling volume output as described in Claim 1, wherein the determined sound levels are represented as energy functions according to their respective frequencies.

3. (Original) A system as described in Claim 1, wherein the volume sensor/controller comprises:

a volume calibrator for setting the volume threshold;

a volume/frequency measurement sensor for representing the determined sound levels as energy functions; and

a comparator for comparing the determined sound levels with the volume threshold and notifying the warning indicator that the volume threshold has been exceeded.

4. (Original) A system as described in Claim 1, wherein the warning indicator is fixed to the headphones for indicating when the volume threshold has been exceeded.

5. (Original) A system as described in Claim 4, wherein the warning indicator comprises a plurality of LED's.

6. (Original) A system as described in Claim 4, wherein the warning indicator

comprises an LCD.

7. (Original) A system as described in Claim 4, wherein the warning indicator comprises an audio indicator.

8. (Original) A volume sensor/controller as described in Claim 3, wherein the volume calibrator comprises:

a category selector allowing the user to select between different volume controlling settings matching different user characteristics; and

a category data base for storing the sound characteristics for the volume controlling settings.

9. (Original) A volume calibrator as described in Claim 8, wherein the category data base comprises:

a default user setting;

an age dependent setting;

a listener type setting; and

a manually controlled setting.

10. (Original) A category data base as described in Claim 9, wherein the listener type setting is configured for setting the volume for a user having a form of hearing loss.

11. (Original) A system for controlling a volume output by a set of headphones to prevent harmful sound levels from damaging a user's hearing, the system comprising a volume sensor/controller for:

determining sound levels from an audio source;

comparing the determined sound levels to a volume threshold; and

adjusting the volume output of the headphones to a level below the volume threshold if said determined sound level is above the volume threshold.

12. (Original) A system for controlling volume output as described in Claim 11, wherein the determined sound levels are represented as energy functions according to their respective frequencies.

13. (Original) A system as described in Claim 11, wherein the volume sensor/controller comprises:

a volume calibrator for setting the volume threshold and a volume control mode;

a volume/frequency measurement sensor for representing the determined sound levels as energy functions;

a comparator for comparing the determined sound levels with the volume threshold; and

an active volume controller for controlling the output volume by adjusting the output volume accordingly in an automatic volume control mode.

14. (Original) A volume sensor/controller as described in Claim 13, wherein the volume calibrator comprises:

a volume control mode selector allowing the user to select between an automatic or manual volume control mode;

a category selector allowing the user to select between different volume controlling settings matching different user characteristics; and

a category data base for storing the sound characteristics for the volume controlling settings.

15. (Original) A volume calibrator as described in Claim 14, wherein the category data base comprises:

a default user setting;

an age dependent setting;

a listener type setting; and

a manually controlled setting.

16. (Original) A category data base as described in Claim 15, wherein the listener type setting is configured for setting the volume for a user having a form of hearing loss.

17. (Currently Amended) A volume sensor/controller as described in Claim 13, wherein the active volume controller comprises:

a volume adjuster for adjusting the volume according to the compared energy value; and

a notifier for notifying a ~~the~~ warning system that an adjustment was necessary.

18. (Original) A system for controlling a volume output to prevent harmful sound levels from damaging a user's hearing, the system comprising:

a set of headphones;

a volume sensor/controller for determining a sound level corresponding to an audio source and comparing the sound level to a volume threshold; and

a warning indicator remote from the headphones, in communication with the volume sensor/controller, for indicating that the determined sound level is above the volume threshold.

19. (Original) A warning system as described in Claim 18, wherein the warning indicator is provided by a PC.

20. (Original) A warning system as described in Claim 19, wherein the PC includes a database for storing a user's listening history.

21. (Original) A warning system as described in Claim 18, wherein the warning indicator is provided on a remote hand held device.

22. (Original) A system as described in Claim 18, further comprising wireless connection hardware for wirelessly connecting the headphones and the audio source.

23. (Original) A method for controlling a volume output of a set of headphones to prevent harmful sound levels from damaging a user hearing, the method comprising:

setting a volume threshold;

receiving audio signals from an audio source;

comparing the audio signals to the volume threshold; and

adjusting a volume output of the compared audio signal to be within the volume threshold.

24. (Original) A method as described in Claim 23, further comprising sending a warning signal to a warning indicator when the audio signals are determined to be above the volume threshold.

25. (Original) A method of sending a warning signal as described in Claim 24, wherein the warning signal is sent via a network.

26. (Original) A method as described in Claim 24, further comprising storing each occurrence of sending the warning signal in a database.